

What is claimed is:

1. A substrate processing device, comprising:
  - 2 a plurality of vacuum process chambers, each of which administers a prescribed process to a substrate therein;
  - 4 a through-chamber which constitutes a vacuum chamber, the plurality of vacuum process chambers are hermetically-connected to a perimeter of the through-chamber;
  - 7 a carry system which carries a substrate in sequence, via the through-chamber, to the plurality of vacuum process chambers, the carry system comprises a substrate holder which holds the substrate upright in such a way that a plate surface thereof forms an angle to the horizontal of between 45° and 90°; and
  - 11 a horizontal movement mechanism which moves the substrate holder via the through-chamber to the plurality of vacuum process chambers.
1. The substrate processing device described in Claim 1, wherein the through-chamber constitutes a direction-altering chamber comprising a direction-altering mechanism which alters the direction of movement of the substrate holder using the horizontal movement mechanism, wherein the direction-altering mechanism alters the direction of movement by rotating the substrate holder and the horizontal movement mechanism about a vertical rotating axis.
1. The substrate processing device described in Claim 2, wherein the direction-altering mechanism rotates the substrate holder and the horizontal movement mechanism about a rotating axis coincident with a center axis of the direction-altering chamber.

1       4. The substrate processing device described in Claim 1, wherein the  
2 substrate holder holds two substrates simultaneously.

1       5. The substrate processing device described in Claim 4, wherein the  
2 substrate holder holds the substrates upright in such a way that the plate surface  
3 thereof forms an angle to the horizontal of between 60° and 90°.

1       6. A substrate processing device, comprising:  
2           a plurality of through-chambers, each of which includes a hermetically-  
3 connected vacuum chamber;  
4           a plurality of processing chambers that are hermetically-connected to the  
5 plurality of through-chambers;  
6           a carry system that carries a substrate in sequence to the processing  
7 chambers, the carry system comprises a substrate holder which holds the substrate  
8 upright in such a way that a plate surface thereof forms an angle to the horizontal  
9 of between 45° and 90°; and  
10          a horizontal movement mechanism which moves the substrate holder to  
11 each of the processing chambers via at least a plurality of the through-chambers.

1       7. The substrate processing device described in Claim 6, wherein the  
2 through-chambers each constitutes a direction-altering chamber comprising a  
3 direction-altering mechanism which alters the direction of movement of the  
4 substrate holder using the horizontal movement mechanism, wherein the direction-  
5 altering mechanism alters the direction of movement by rotating the substrate  
6 holder and the horizontal movement mechanism about a vertical rotating axis.

1       8.    The substrate processing device described in Claim 7, wherein the  
2 direction-altering mechanism rotates the substrate holder and the horizontal  
3 movement mechanism about a rotating axis coincident with a center axis of the  
4 direction-altering chamber.

1       9.    The substrate processing device described in Claim 6, wherein the  
2 substrate holder holds two substrates simultaneously.

1       10.   The substrate processing device described in Claim 9, wherein the  
2 substrate holder holds the substrates upright in such a way that the plate surface  
3 thereof forms an angle to the horizontal of between 60° and 90°.

1       11.   A through-chamber having a perimeter to which a plurality of  
2 vacuum processing chambers are hermetically-connected, the through chamber  
3 comprising:

4           a vacuum chamber;

5           a horizontal movement mechanism including a substrate holder for holding  
6 a substrate, the horizontal movement mechanism horizontally moves the substrate  
7 holder through the vacuum chamber, and the substrate holder holds the  
8 abovementioned substrate upright in such a way that the plate surface thereof  
9 forms a holding angle to the horizontal of between 45° and 90°, and

10           a direction-altering mechanism which alters the direction of movement of  
11 the substrate holder by rotating the substrate holder and horizontal movement  
12 mechanism about a vertical rotating axis.

1           12. The through-chamber as described in Claim 11, wherein the  
2 direction-altering mechanism rotates the substrate holder and the horizontal  
3 movement mechanism about a rotating axis coincident with a center axis of the  
4 through-chamber.